

REMARKS

In the Office Action mailed 03/14/2007, the Examiner took the following action: Claims 1—84 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The Applicant respectfully requests reconsideration of the application in view of the foregoing amendments and the following remarks.

I. Rejections under 35 USC §112

Claims 1, 23, 45 and 69

Original claim 1 recites:

1. **A control system** for a remote-controlled vehicle, the control system comprising:
 - an electromagnetic energy receiver** configured to receive an electromagnetic beam, the electromagnetic energy receiver including:
 - an electromagnetic energy converter configured to convert energy received from the electromagnetic beam and generate electrical power;
 - and
 - a beam position sensor configured to generate a control signal indicative of a position of the electromagnetic energy receiver relative to a position of the electromagnetic beam and generate a control; and
 - a propulsion control system** configured to receive at least some of the electrical power and the control signal and further configured to generate propulsion commands to direct the vehicle to the position of the electromagnetic beam. (Emphasis added).

Accordingly, claim 1 recites “A control system” in the preamble, and “an electromagnetic energy receiver” and “a propulsion control system” in the claim body. The Applicant respectfully submits that the claim body recites elements consistent with remote control of the vehicle, as recited in the preamble.

However, the Patent Office suggests that the preamble recites "a control system for a remote-controlled vehicle", but that the body of the claim describe "a vehicle with on-board guidance". Moreover, the Patent Office suggests that claim 1 fails to recite a remote-control structure. The Applicant respectfully disagrees.

Referring to the body of the claim, the beam position sensor generates a control signal, based in part, on a position of the beam. The control signal is received by the propulsion control system. Thus, the beam controls the position of the vehicle, and the "propulsion control systemdirects the vehicle to the position of the electromagnetic beam." Accordingly, by moving the beam, a remote controller/user can control the position of the vehicle by making it follow the beam.

The propulsion control system directs "the vehicle to the position of the electromagnetic beam". Therefore, by controlling the beam from a remote location, the vehicle, which follows the beam, is remotely controlled. As noted at page 3, lines 17—20, "Thus, by controlling the position of the electromagnetic beam, the position of the airborne vehicle can be controlled, thereby allowing for surveillance of a desired location or a signal relay point to be positioned at a desired point in space." Therefore, the preamble and claim body are not contradictory.

Accordingly, the Applicant respectfully requests that the Section 112 rejection of claim 1 be removed, and that claim 1 be allowed to issue.

Original claim 23 recites:

23. A remote-controlled vehicle comprising:

- a vehicle housing;
- an electromagnetic energy receiver coupled with the housing and configured to receive an electromagnetic beam, the electromagnetic energy receiver including;
- an electromagnetic energy converter configured to convert energy received from the electromagnetic beam and generate electrical power;
- and

- a beam position sensor configured to generate a control signal indicative of a position of the electromagnetic energy receiver relative to a position of the electromagnetic beam and generate a control;
- electromagnetic beam and generate a control;
- a propulsion control system configured to receive at least some of the electrical power and the control signal and further configured to generate propulsion commands to direct the vehicle to the position of the electromagnetic beam; and
- a propulsion system disposed in the housing, the propulsion system being further configured to receive the propulsion commands. (Emphasis added).

Accordingly, the preamble of claim 23 recites, "A remote-controlled vehicle comprising". However, the Patent Office suggests that the preamble recites a "control system for a remote-controlled vehicle".

Therefore, the Applicant respectfully submits that the Patent Office has inadvertently copied and pasted the rejection for claim 1 into the rejection of claim 23.

Accordingly, the Applicant respectfully submits that the Section 112 rejection of claim 23 is defective, and requests that the rejection be lifted and the claim allowed to issue.

Original claim 45 recites:

45. A remote-controlled vehicle operation system comprising:

a remote-controlled vehicle including:

a vehicle housing;

an electromagnetic energy receiver coupled with the housing and configured to receive an electromagnetic beam, the electromagnetic energy receiver including:

an electromagnetic energy converter configured to convert energy received from the electromagnetic beam and generate electrical power; and

a beam position sensor configured to generate a control signal indicative of a position of the electromagnetic energy receiver relative to a position of the electromagnetic beam and generate a control;

a propulsion control system configured to receive at least some of the electrical power and the control signal and further configured to

generate propulsion commands to direct the vehicle to the position of the electromagnetic beam; and
a propulsion system disposed in the housing, the propulsion system further configured to receive the propulsion commands; and
an electromagnetic beam generator configured to generate the electromagnetic beam. (Emphasis added).

Accordingly, the preamble of claim 45 recites, "A remote-controlled vehicle operation system comprising". However, the Patent Office suggests that the preamble recites a "control system for a remote-controlled vehicle".

Therefore, the Applicant respectfully submits that the Patent Office has inadvertently copied and pasted the rejection for claim 1 into the rejection of claim 45.

Accordingly, the Applicant respectfully submits that the Section 112 rejection of claim 45 is defective, and requests that the rejection be lifted and the claim allowed to issue.

Original claim 69 recites:

69. A method for operating a remote-controlled vehicle, the method comprising:
receiving an electromagnetic beam;
converting the electromagnetic beam into electrical power to provide at least a portion of the power used by the remote-controlled vehicle;
determining a position to which the electromagnetic beam is directed; and
maneuvering the remote-controlled vehicle to align a position of the remote-controlled vehicle with the position to which the electromagnetic beam is directed. (Emphasis added).

Accordingly, claim 69 recites, "A method for operating a remote-controlled vehicle, the method comprising" in the preamble, and recites aspects of the operation of the vehicle in the claim body.

In particular, the receiving, converting, determining and maneuvering can all be performed as part of a method for operating a remote-controlled vehicle.

The Patent Office summarily asserts that the body of the claim describes a method of operating a vehicle having on-board guidance. However, the Patent Office fails to point to any recitations in the claim wherein the on-board guidance is indicated. In fact, the elements recited by the claim appear to be consistent with a remote-controlled vehicle.

For example, a remote controlled vehicle could be operated according to a method step of receiving an electromagnetic beam. Similarly, the remote controlled vehicle could be operated according to a method step of converting the beam to electrical power. Further, the remote controlled vehicle could be operated according to a method step of determining a position to which the electromagnetic beam is directed. And still further, the remote controlled vehicle could be operated according to a method step of maneuvering the remote-controlled vehicle to align with the beam. As noted above, with respect to claim 1, the position of the vehicle is controlled by remotely controlling the location of the beam.

Therefore, the Patent Office's assertion that the claim elements do not describe a method by which a remote-controlled vehicle could be operated is not supported.

Accordingly, the Applicant respectfully submits that the Section 112 rejection is not well founded, and respectfully asks that the rejection of claim 69 be removed.

CONCLUSION

Rejections of claims 23 and 45 were clearly a cut-and-paste of the rejection of claim 1, and are therefore deficient because they do not address the issues presented by claims 23 and/or 45.

Rejections of claims 1 and 69 are summarily presented, and do not provide support or reasoning suggesting that the claim elements do not recite aspects of the preamble.

For the foregoing reasons, Applicant respectfully submits that claims 1—84 are now in condition for allowance. If there are any remaining matters that may be handled by telephone

conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

Respectfully Submitted,

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